

THE COMPLETE TECHLINE® PRODUCT RANGE

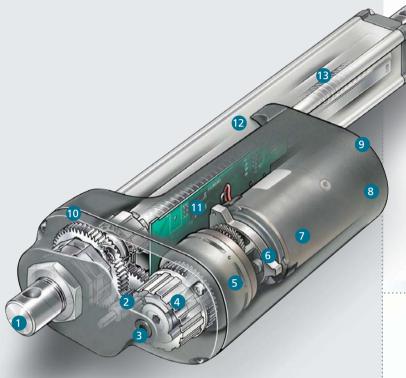








# THE COMPLETE TECHLINE™ PRODUCT RANGE



LINAK actuator systems ease the load and make work easier. The remarkably wide product range offers something for any imaginable type of movement.

With these actuator systems you can easily reach inaccessible places, open or close sun blinds and roof windows, regulate ventilators, close gates automatically - and save yourself exertion.

Workstations and production lines can be set up individually to increase efficiency and comfort.

- 1. Turnable back fixture in steps of 30 degrees
- 2. Optional positioning feedback: Potentiometer or Hall effect sensor
- 3. Hand crank for manual operation
- 4. Brake
- 5. Overload clutch
- 6. Thermal switch in motor
- 7. 12, 24, or 36 V DC motor
- 8. Aluminum housing coated according to corrosion class 4
- 9. Exchangeable cables
- 10. High-pressure cleaner proof
- 11. Built-in end-stop switches (optional)
- 12. Anodised outer tubes
- 13. Stroke length up to 999 mm
- 14. Piston rod eye for 1/2" or 12 mm PIN







### LINEAR ACTUATOR TECHNOLOGY



There is a colossal number of very different applications in the industrial sector. To ensure that we focus on exactly the application you need we have divided the industrial market into three segments, which share some of the same characteristics and requirements for linear actuators: MOBILE, MACHINERY & WORKSPACE, and BUILDING & CONSTRUCTION

LINAK has a wide experience in integrating actuators into applications and developing solutions, which fit discretely into work processes - so do not hesitate to contact us.





**DESK PANEL** 







**CONTROL BOX** 





### **ELECTRONICS**

**FOOT SWITCH** 





### **ACTUATORS**



Thrust: Max. 750 N Speed: 5-50 mm/s Stroke length: 40-130 mm **Duty Cycle:** Up to 100% 12/24 V DC Voltage: End-stop: Built-in limit switches

#### Options:

- PLC interface
- Potentiometer
- Reed switch
- IP 66 housing

#### Scope of application:

- All kinds of mobile applications
- Factory automation
- Ventilation
- Valves
- Dosage

### Facts:

- Compact and lightweight
- Reinforced glass fibre



The LA12 actuator is ideal for industrial automation, ventilation systems, and other applications where small movements are required.

With LA12 PLC interface.

Thrust: Max. 6,000 N Speed: 10-52 mm/s 50-500 mm Stroke length: **Duty Cycle:** 10%

Voltage: 12, 24, or 36 V DC End-stop:

LS/LSD or current

cut-off

### Options:

- Powerful strong motor
- Potentiometer
- Reed switch
- Optical encoder
- IP 66 housing
- Hand crank for manual operation
- Ball screw spindle
- Safety nut

### Scope of application:

- Agricultural applications
- Lawn and garden equipments
- Floor sweepers
- Satellite dishes
- All kinds of industrial applications

#### Facts:

- Solid metal construction
- Compact and powerful
- Suitable for harsh conditions



The LA30/30S actuator is a very versatile actuator for industrial and system applications. It can be supplied in many customised versions, also wheelchairs.



For detailed information - please use data sheets Specifications subject to change without prior notice.







The LA35 actuator is a new member of the TECHLINE™ family. It is characterised by its robust design allowing the actuators to be used in harsh and extreme conditions.

The LA35 actuator is designed to meet the challenge, based on the philosophy that it must be able to operate on off-highway equipment such as agriculture, forestry and construction machines.

 Thrust:
 10,000 N

 Speed:
 8-150 mm/s

 Stroke length:
 100-999 mm

 Duty Cycle:
 20%

Voltage: 12, 24, 36 V DC End-stop: Slip clutch or

built-in limit switches

### Scope of application:

- Agricultural applications
- Mobile "off-highway" applications
- Floorsweeper and scrubber
- All kinds of industrial equipments



- Max thrust up to 6,000 N in push and up to 4,000 N in pull
- Heavy-duty aluminimun housing for harsh conditions
- Protection class IP66 dynamic, IP69K static
- Stroke up to 600 mm
- Easy to use interface with integrated power electronics for direct connection to control system
- Potential free limit switches as an option
- Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length.
- Built-in limit switches and brake
- Voltage 12 or 24 V DC



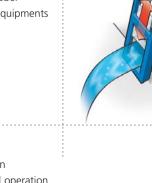
### Options:

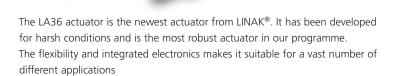
LA<sub>36</sub>

- Potentiometer
- Hall effect sensors
- Adjustable signal swiches
- Integrated electronics

### Scope of application:

- Agricultural applications
- Mobile "off-highway" applications
- Floorsweeper and scrubber
- All kinds of industrial equipments





- Solid metal construction
- Hand crank for manual operation
- Suitable for very harsh conditions
- Salt spray testet
- High presure cleaner-proof



## **ACTUATORS**

Thrust: Max. 400 N Speed: 13-37 mm/s Stroke length: 50-200 mm Duty Cycle: 10% Voltage: 12/24 V DC

End-stop:

LS/LSD or current cut-off

#### Options:

- IP 65 housing
- Different back fixtures
- Various piston rod eyes

#### Scope of application:

- Agricultural applications
- Wheelchairs
- All kinds of industrial applications

#### Facts:

- Solid metal construction
- Unique space saving design
- Low noise level



The LA22 actuator is an in-line actuator specially designed with small overall dimensions for use in industrial, agricultural, and rehabilitation products.



Thrust: Max. 3,500 N
Speed: 3-46 mm/s
Stroke length: 100-600 mm
Duty Cycle: 10%
Voltage: 12/24 V DC
End-stop: Current cut-off

#### Options:

- Powerful strong motor
- Reed switch
- IP 66 housing
- Safety nut
- Integrated electronic limit switch

### Scope of application:

- · Agricultural applications
- Lawn and garden equipment
- Floor sweepers
- Factory automation

#### Facts:

- Powerful and quiet operation
- Reinforced glass fibre
- Use in "push" appliacations
- Compatible with CB8, CB12, CB14, and CB18

The LA28/28S actuator (with standard or fast motor) is a very quiet and powerful actuator, designed for use in the furniture, rehabilitation, and hospital bed industries. Agricultural machinery and other outdoor equipment are also other main areas of application.







LA31



Thrust: Max. 6,000 N Speed: 3-33 mm/s 50-500 mm Stroke length: **Duty Cycle:** 10% Voltage: 12/24 V DC End-stop: Built-in limit switches

### Options:

- Reed switch
- · Hall effect sensor
- IP 66 housing
- Safety nut
- Fast motor

### Scope of application:

- Light mobile applications
- Factory automation
- All kinds of indoor applications

#### Facts:

- Numerous combinations of motor and spindle pitches
- Zinc alloy back fixture
- Compatible with CB7 and CB9



Thrust: Speed: Stroke length: **Duty Cycle:** 

Max. 6,000 N 5,5-15 mm/s 100-400 mm 10%

Voltage: 12, 24, or 36 V DC Current cut-off

**End-stop:** 

LA32

The LA32 actuator is a very quiet and powerful actuator, designed for hospital beds, patient lifts, and other demanding applications.

#### Options:

- Powerful strong motor
- Potentiometer
- Reed switch
- Optical encoder
- IP 66 housing
- Ball screw spindle
- Safety nut
- Integrated electronic limit switch

#### Scope of application:

- Agricultural applications
- · Lawn and garden equipment
- Floor sweepers
- Factory automation

#### Facts:

- Powerful and quiet operation
- Reinforced glass fibre
- Use in "push" applications
- Compatible with CB8, CB12, CB14, and CB18

Thrust: Max. 10.000 N Speed: 5-18 mm/s 100-600 mm Stroke length: **Duty Cycle:** 10% Voltage: 12/24 V DC End-stop: Built-in limit switches

#### Options:

- Potentiometer
- Reed switch
- IP 66 housing
- Compact housing
- Safety nut

### Scope of application:

- Mobile applications
- · Factory automation
- Scissor lift
- Various numbers of indoor and outdoor applications

### Facts:

- Compact
- Outstanding performance
- Low noise level

LA34

The LA34 actuator is an advanced, high-tech actuator, which can push up to 10,000 N. Its compact design, outstanding performance, and range of safety options makes the LA34

actuator the ideal choice for a variety of medical and industrial applications.





### LIFTING COLUMNS

Thrust: Max. 1500 N Speed: 43 mm/s Stroke length: 500 mm **Duty Cycle:** 5% Voltage: 12/24 V DC

The DL2 column is designed for workstations and is the ideal choice for duties such as height adjustment on computer workstations, work benches or a wide selection of other duties. Inside each column is a modified LA31 actuator.

Thrust: 5,000 N Speed: 22 mm/s Max. Amp.: 24 V DC Voltage:

### Options:

LC2

- Different profiles
- Reed switch
- Different end plates
- Exchangeable cables

#### Options: Scope of application:

Mounting bracket

(order number 0578006)

Hall sensors to ensure memory

CBD2 mounted in the DL2

drive and parallel drive with CBD4

- Computer workstations
- Work benches
- Platforms

#### Facts:

- Low noise level
- Compact and mounting friendly design
- Single drive (CBD2 and CBD4), parallel drive (only CBD4)



DL<sub>2</sub>

The LC2 column is an update of the LP2 programme. Depending on the application, the LC2 column can be operated either as a single column or several columns in a parallel system by the choice of a control box with microprocessor



### Scope of application:

- Height adjustable conveyours
- Factory automation
- Ergonomic work spaces
- Workstations

- Bending moment 1,400 N
- Built-in end-stop switches
- Safety nut as standard
- Robust anodised aluminium surface
- Compatible with CB8, CB9, CB12, CB14, and CB18



Thrust: Max. 6,300 N
Speed: 5-21 mm/s
Stroke length: 195-500 mm
Installation dim.: 405-670 mm
Duty Cycle: 10%
Voltage: 24 V DC
End-stop: Current cut-off

#### Options:

- Different profiles
- Different end plates
- Integrated gas spring
- · Mounting brackets
- Safety nut



#### Scope of application:

- Height adjustable conveyours
- · Factory automation
- Ergonomic work spaces
- Workstations

#### Facts:

- Robust anodised aluminium surface
- Low noise level
- Compatible with CB8, CB12, CB14, and CB18

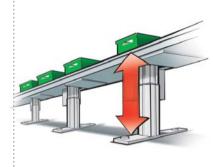
The LP2 lifting column is the ideal choice for height adjustment of examination tables, work benches as well as for industrial applications. It can be operated with two, three, or four columns in parallel.

Thrust: Max. 2,400 N
Speed: 7-18 mm/s
Stroke length: 300-600 mm
Installation dim.: 360-550 mm
Duty Cycle: 10%
Voltage: 24 V DC
End-stop: Current cut-off



### Options:

- Reed switch
- Mounting brackets
- Safety nut



The LP3 lifting column is ideal for applications where there is a demand for both lifting height and small installation dimensions. The telescopic column is compatible with LINAK's control units and can operate individually or in parallel.

### Scope of application:

- Height adjustable conveyors
- Factory automation
- Ergonomic work spaces
- Workstations

- Very compact 3-stage column
- Robust anodised aluminium surface
- Low noise level
- Compatible with CB8, CB12, CB14, and CB18



### CONTROLS







The controls are the units used when you want the LINAK system to perform a movement. They determine whether the control box makes the actuator move in or out. There are more variants of LINAK® controls such as handsets, Foot Switches, Desk Panels, and Attendant Control Panels. All the handsets are available in both black and grey.

#### Facts:

- Operation of up to four actuators
- Compatible with CB8, CB9, CB12, CB14, and CB18
- Ergonomic, compact design
- Robust (sturdy) plastic housing
- Protection class up to IP 66

#### Facts:

- Operation of up to four actuators
- Compatible with CB8, CB9, CB18
- Ergonomic, compact design
- Robust (sturdy) plastic housing
- Operation of the memory functions of the actuators
- Protection class up to IP 66

FS



DP





### Facts:

- Operation of one or two actuators/ channels
- Compatible with CB8, CB9, CB12, CB14, or CB18
- Modular system
- Protection class up to IP 66

- Operation of the memory functions of the actuators
- Operation of up to three actuators/channels
- Compatible with all LINAK® control boxes
- Mounting under tabletops
- Protection class IP 30



### CONTROL BOXES

CB8-A



Actuator: LA12, LA28, and LA30

**Duty Cycle:** Max. 10% **Max. amp (\Sigma):** 10

**Channels:** Max. 3 Battery operated

CB8-T



**Actuator:** LA12, LA28, and

LA30

Duty Cycle: Max. 5% Max. amp ( $\Sigma$ ): 8

Max. amp ( $\Sigma$ ): 8 Channels: Max. 2



The control box is the heart of the system linking the various external parts (actuators, controls, and ACP), which can be connected. In recent years LINAK has introduced several different control boxes, from small control boxes suitable for powering one or two actuators to sophisticated control boxes with microprocessors suitable for powering up to six actuators. The control boxes are all available in black or grey.





Actuator: LA28, LA30, and LA34

**Duty Cycle:** Max. 10%

Max. amp ( $\Sigma$ ): 8 Channels: Max. 4 Optional battery operated CB14



Actuator: LA28, LA30, and LA34

**Duty Cycle:** Max. 10% **Max. amp (\Sigma):** 10

**Channels:** Max. 5 Optional battery operated



## ACCESSORIES

#### TRANSFORMER SOLUTION



#### PARALLEL CONTROLLER



### **MOTOR CONTROLLER**



#### **ROCKER SWITCH**



#### Facts:

- 150 VA
- Primary 230 V 50/60 Hz
- Secondary 24 V max 6,8 A
- Prepared for build-in motor controller or parallel controller.
- IP 66 housing for outdoor use (\*)

#### Facts:

- Synchronized parallel control for 2 Actuators
- Operates with pulse feedback (Hall or Reed)
- Current and temperature limited
- soft start/stop
- Adjustable drive speed
- Accurate repeatability
- Easy setting via serial interface (\*)

#### Facts:

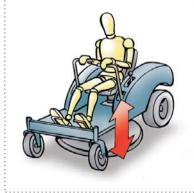
- Variable power supply 12-36 V DC
- Overload protection adjustable current limit 1-20 A
- Adjustable soft start and stop
- Several versions for different applications
- Integrated brake
  (\*)

#### Facts:

- For all actuators with limit switches
- Easy operation of actuators without use of further electronics
- IP 66 for outdoor use
- Easy to install
- Tested with an LA36 12 V DC for 50,000 operations

(\*)

(\*) "The specified product is a third party product that is produced by third party and distributed by LINAK as a supplement to LINAK's existing product range. It is the responsibility of the product user to determine the suitability of the product for a specific application. LINAK will at point of delivery replace/repair defective products covered by the warranty if promptly returned to LINAK."



### **LA30 WITH BELLOW**



### Facts:

• Gives a better protection and therefore gives a higher liftetime of the actuator

### **BELLOW**



#### Facts:

- Protects the inner tube against dust and dirt
- Can be used for actuators: LA22, LA28, LA30, LA31, and LA32
- Does not change the IP rating
- Available in black colour
- Ask for special folder

(\*)

For detailed information - please use data sheets Specifications subject to change without prior notice.



## ROBUST QUALITY

When LINAK develops and produces products quality is the keyword for our employees. LINAK constantly strives to improve the quality and to reduce the risk of faults, which contributes to the fact that our customers experience LINAK as a supplier of high-quality products.



### **APPLICATION TEST**

Even the most stringent test specifications and high product quality cannot secure against inexpedient use of our products. An incorrect mounting or overload of the products can have great consequences to our customers. LINAK therefore always recommends our customers to carry through an application test when implementing our products. LINAK's sales force has wide experience in integrating our products into applications and is always willing to advice our customers.



of a development course at LINAK. More than 200 actuators are tested every day all the year round.

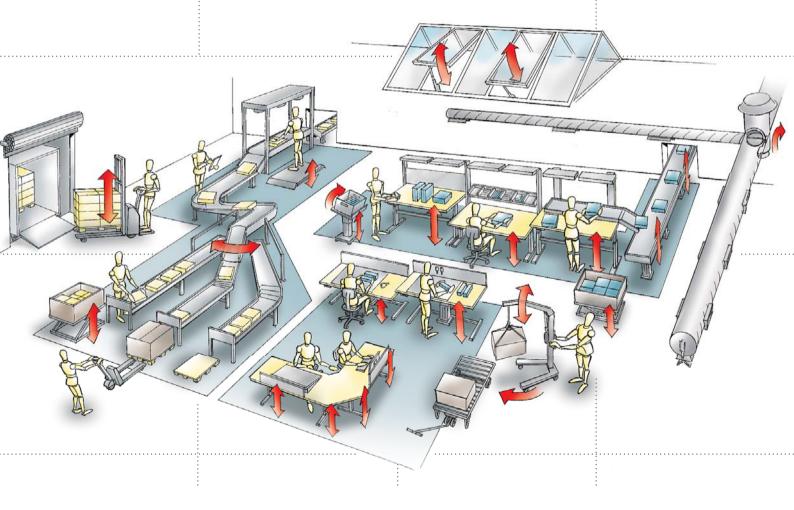
Test is an important part

Static IP X6 test of the LA36. The actuator must be able to withstand 100l/minutes for 3 minutes

## A WIDER RANGE OF SOLUTIONS

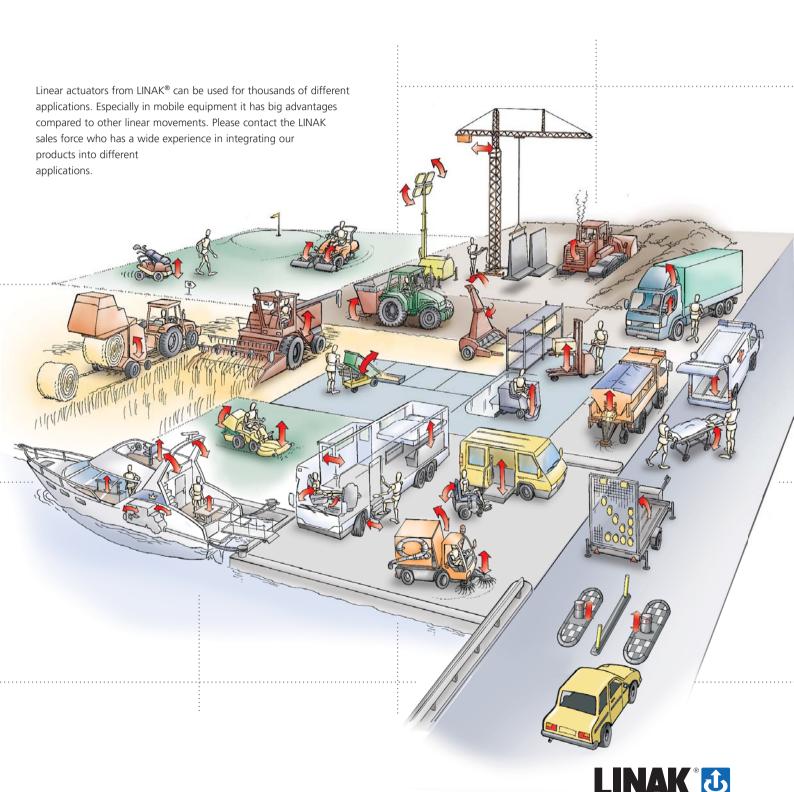
Linear actuators from LINAK® make it possible to easily and economically adjust various functions in a wide number of applications. LINAK TECHLINETM solutions can improve several facets of your company's working environment including ergonomic lifting, cost-effective automation, and ventilation.

Our comprehensive product programme can be tailored to match your specific needs. LINAK TECHLINE $^{\text{TM}}$  solutions allow you to adapt your workplace to your workers rather than the other way round.



www.techline.linak.com





WE IMPROVE YOUR LIFE

### WE PROVIDE INNOVATIVE ACTUATION SOLUTIONS THAT IMPROVE PEOPLE'S QUALITY OF LIFE AND WORKING ENVIRONMENT

#### **TERMS OF USE**

The user is responsible for determining the suitability of LINAK products for a specific application.

LINAK takes great care in providing accurate and up-to-date information on its products.

However, due to continuous development in order to improve its products, LINAK products are subject to frequent modifications and changes without prior notice. Therefore, LINAK cannot guarantee the correct and actual status of said information on its products. While LINAK uses its best efforts to fulfil orders, LINAK cannot, for the same reasons as mentioned above, guarantee the availability of any particular product. Therefore, LINAK reserves the right to discontinue the sale of any product displayed on its website or listed in its catalogues or other written material drawn up by LINAK.

All sales are subject to the Standard Terms of Sale and Delivery for LINAK. For a copy hereof, please contact LINAK



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### A HISTORY OF TRADITION AND INNOVATION

LINAK has gone through a remarkable transformation since being established back in 1907. When Bent Jensen, CEO and Owner took over the company in 1976 he brought a brand new idea with him. An idea which led to the development of the very first linear actuator in 1980

It soon became obvious that this new invention had an even larger potential than anyone could have imagined. The linear actuator was going to facilitate ergonomic improvements in workplaces as diverse as offices, hospitals, comfort furniture, farms, and industry.

Throughout this process of improvement and transformation. LINAK's commitment to quality remains the same. The quality of our products affect the quality of people's lives, and we are very much aware of our responsibility. All products are thoroughly tested according to the most demanding standards, and all assembly processes utilize modern technologies.

As we have grown, so has our network of international offices around the world. Today we are present in 35 countries across the globe.

